

Special Products

Date: _____

A. Squaring Binomials

EX: Look for patterns when expanding:

$$(2x + 3)^2$$

$$(3x - 5)^2$$

RULE: To square a binomial, add the square of the first term, the square of the second term, and the first term times the second term times two.

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$(a - b)^2 = a^2 - 2ab + b^2$$

EX: $(5a + 3b)^2$

EX: $5(4x - 3)^2$

B. Difference of Squares

EX: Look for patterns when expanding:

$$(3x + 2)(3x - 2)$$

RULE: Multiply the two first terms and the two second terms.

$$(a + b)(a - b) = a^2 - b^2$$

EX: $3(5x + 2y)(5x - 2y)$

EX: $(3x + 4)(3x - 4) - 2(x - 5)^2 + 3(x + 4)^2$